

CLAIMS

1. A method for determining the amount of flow of a particle-containing fluid at a determined location in a subject body comprising:

a) transmitting a series of pulses of ultrasonic energy into the body from a probe, the probe consisting essentially of an array of transmitter elements and detector elements;

b) detecting reflections of energy originating in each pulse of the series of pulses from the location;

c) filtering resulting detected signals to separate out Doppler shifted signals from each pulse;

d) comparing the Doppler shifted signal from each pulse with the Doppler shifted signal from the subsequent pulse to calculate the magnitude and phase of an autocorrelation function at a lag of one; and

e) analyzing the phase of the autocorrelation function at a lag of one to determine an average velocity of flow of the fluid at the determined location and analyzing the magnitude of the autocorrelation function at a lag of one to indicate the flow at the determined location.

2. The method of Claim 1 comprising storing the velocity and indication of fluid flow at the determined location in a memory.

3. The method of Claim 1 comprising displaying the velocity and indication of fluid flow at the determined location as a point in a graphic display of fluid flow in the subject body.